

Chapter 9: Land use, community and social effects

Introduction

- 9.1 The potential land use, social and community effects that could arise from the proposed wind farm were assessed by Terence O'Rourke.
- 9.2 Community and social effects were classified as being of primary significance during the scoping stage, while land use effects were considered to be of secondary significance. The scoping process identified the potential effects on land use, tourism and the economy, and public perception of the development as being the key issues for consideration in this chapter.

Legislation and policy

- 9.3 The adopted Isle of Wight Unitary Development Plan (UDP) guides land use planning on the island up to 2011. There are no specific policies relating to land use at the site or to the potential community effects of renewable energy projects in the UDP. Further detail on planning policy is set out in the planning supporting statement that accompanies the application and this environmental statement.

Methodology

Land use

Baseline

- 9.4 A desk-based assessment was undertaken to identify the land uses in the vicinity of the proposed development site. The references and data sources used in the assessment are shown in table 9.1. A study area extending 1.5 km around the site was set for this assessment, which has been found by experience to be suitable for this type of development.

1:10,000 Ordnance Survey map
British Wind Energy Association, 2006, Wind Energy and Horses
ODPM. 2004. Planning for renewable energy: A companion guide to PPS22
British Horse Society, Advisory Statement Number 20: Wind Farms
Department of Trade and Industry, 2001, Where to Visit Wind Farms: Wind Energy Factsheets
MAFF, 2000, Good practice guide for handling soils
Table 9.1: data sources and references

- 9.5 The land use importance and sensitivity to change of the identified land uses has been assessed using the criteria in figure 9.1.

9.6 The magnitude of change has been assessed against the categories shown in figure 9.2. The following issues were considered:

- effects on land uses at the site and in the surrounding area
- effects on public rights of way.

Impact assessment

9.7 There are no known published ‘standard’ criteria for assessing the significance of effects on land use. The assessment of effect significance has been determined using criteria developed from best practice techniques and expert knowledge. The final determination of significance has been derived from cross-referencing the two sets of criteria (magnitude and sensitivity) using the significance matrix shown in figure 9.3.

Community and social

Baseline

9.8 A detailed desk study was undertaken to assess the community and social baseline conditions in the vicinity of the proposed development site. The data sources used in the study are set out in table 9.2.

2001 Census
Isle of Wight Tourism Activity monitor (2004/05)
Tourism Development Plan 2005, IoWC
Learning and Skills Council, 2005, Hospitality and tourism sector profile, www.lsc.gov.uk/hampshire-iow/Employer/Other+Sector+page
Learning and Skills Council, 2005, Priority sector analysis – final report www.lsc.gov.uk/hampshire-iow/Employer/Other+Sector+page
Housing market guide, Home Track, 2004
UK National statistics website – www.statistics.gov.uk
IoWC website – www.iwight.com
Warren et al, 2005, Green on Green: Public Perception of Wind Power in Scotland and Ireland, Journal of Environmental Planning and Management 48(6) 853-875
MORI Scotland, 2002, Tourist Attitudes to Wind Farms
MORI Scotland, 2003, Public Attitudes to Wind Farms
UWE, 2004, Fullabrook wind farm proposal: Evidence gathering of the impact of wind farms on visitor numbers and tourist experience
IoWC, 2006, Island Plan Preferred Core Strategy
ICM Research, 2006, Telephone poll of Scottish adults
RBA, 2002, Lambrigg Residents Survey
Hampshire Economic Partnership, 2004, Informing Our Future
Table 9.2: data sources and references

Sensitivity of receptors

9.9 Social and community receptors are a combination of the characteristics of the existing population (sensitivity varying according to age, unemployment levels, health, etc.) and the local economic situation. The sensitivity of receptors will be governed by their capacity to cope with changes. The sensitivity of identified receptors is categorised with reference to figure 9.4.

Impact assessment

- 9.10 The degree of impact from the proposed development will depend on any effects on business in comparison to the existing and future situations. The social and economic characteristics of the area are assessed for change caused by the proposed development, whether direct, indirect, long or short term. The magnitude of any effects is categorised with reference to figure 9.5.

Impact significance

- 9.11 The assessment of effect significance has been determined using criteria developed from best practice techniques and expert knowledge. The final determination of significance has been derived from cross-referencing the measures of magnitude (or scale of the effect) and the importance or sensitivity of the resource affected against the significance matrix in figure 9.6.

Background – public perception

- 9.12 To examine the effects of the proposals on the existing community and social baseline, the assessment has focused on public perception, tourism and the economy.

Public perception of renewable energy and wind farms

- 9.13 The Government White Paper on Energy (2003) outlines the need to move away from dependence on fossil fuels for energy generation. It also cites nuclear as an unattractive option due to issues relating to the disposal of the waste. A number of independent surveys have been carried out investigating public perception of the concept and use of renewable energy technology.
- 9.14 The most recent study into public attitudes towards energy was carried out in Scotland by ICM Research in 2006 and confirmed the results of previous studies. Results demonstrated that there is a generally positive attitude towards renewable energy with 52% of adults giving it as the preferred method of meeting future energy demands in Scotland, compared to 21% favouring gas, 15% nuclear power and 6% coal.
- 9.15 However, once a site is identified for development related to energy generation, including wind farms, the support or opposition for the technology ceases to be simply in principle, and becomes personal. Even if an informed public is not universally opposed to wind farms as part of an energy strategy, many feel moved to oppose a site planned near their homes.

The basis of public concern

- 9.16 The ‘ideal’ site is very rare, which means that compromise at some level is nearly always necessary. Sites located in close proximity to residential areas usually meet with the most opposition, but similarly objections may be raised to sites in rural and unspoiled locations, especially in relation to the ecological and visual impacts.

9.17 Public opinion surveys relating to wind farm developments have shown the following broad public concerns:

- visual impacts
- transport issues
- conflict with local economy (especially tourism)
- property values
- health impacts
- lifespan and future implications
- outside company making profit out of the community
- economic viability
- intermittency.

9.18 In specific locations, some of these concerns are proven to be valid, although others are not currently supported by any independent research.

Visual impacts

9.19 This issue is considered in detail in chapter 8 (landscape and visual effects). The nature of wind farm development dictates that they should be located in regions with reliable wind sources to maximise the energy production from the turbines. Such locations are often found in remote and exposed areas known for their scenic qualities.

Transport issues – construction traffic and driver distraction

9.20 The issue of driver distraction by wind farms located close to major highways is often raised by local residents. However, there are now a large number of wind farms adjoining or close to road networks and no associated history of accidents (Companion Guide to PPS 22, 2004). The concept of driver distraction is not mentioned in responses to surveys that investigating public perception of wind farms. Traffic issues are addressed in chapter 13 of this environmental statement.

Conflicts with the local economy

9.21 The potential of wind farms to impact on the local economy is a serious concern. In many areas suitable for wind farm developments, tourism is the economic sector that generates a substantial part of the annual revenue, and is perceived to be most at risk from the construction of wind farms in the vicinity. A number of surveys have been carried out to assess the potential and actual impact of wind farms on tourism and the local economy, looking at both the pre-development and post-development opinions of tourists and local people.

9.22 A 2002 MORI Scotland survey of the attitudes towards wind farms amongst tourists visiting Argyll and Bute concluded that the majority did not feel that wind farms had a detrimental effect on their visit. Many had not been aware of the presence of the turbines and 91% said that the wind farms would not deter them from visiting the region again, with 4% citing them as a positive aspect.

9.23 The findings of the MORI research in Scotland support the results of a public attitudes survey carried out amongst residents living near Lambrigg wind

farm, Cumbria (RBA, 2002). 71% of residents questioned felt that presence of the wind farm had not affected the number of people visiting the area.

- 9.24 In 2004, the University of West of England (UWE) was commissioned to undertake a study into the impact of wind farms on visitor numbers and the tourist experience, as part of the Fullabrook wind farm proposal in North Devon. The study looked into the potential impacts of the proposed wind farm, in addition to evidence of the tourism-related impacts of two existing wind farms in Cornwall (Bears Down and St Breock), and two in Mid-Wales (Carno and Bryn Titli). Results showed that 66% of tourists in Cornwall and 47.8% in Wales agreed that the wind farm had no impact on their visitor experience. In North Devon 86.7% suggested that the development of a wind farm would have no bearing on the likelihood of their visiting the area.
- 9.25 The UWE survey also considered visitor spending patterns. It was found that the three highest categories of spending were transport, accommodation, and food and drink. Visitors also spent money on trips, entrance fees, sports and activities, clothing and souvenirs.
- 9.26 In 2005, The Wight Against Rural Turbines (ThWART) commissioned a survey of public opinion survey towards the proposed wind farm development at Wellow, Isle of Wight. The survey questions were not phrased specifically enough for detailed rigorous statistical analysis, but the conclusions drawn suggested that almost half of those surveyed did not know if the wind farm would positively or negatively affect the number of tourist visits, but of those that had an opinion, 88.5% felt that tourists may not visit because of the turbines.
- 9.27 The potential impacts of the wind farm proposal on tourism is addressed later in this chapter.

Noise impacts

- 9.28 Wind farms are often perceived as being noisy, but improvements in the technology have created much quieter modern turbines. A survey in Northern Ireland (Warren *et al*, 2005) found that concerns over noise impacts were raised by 50% of those questioned prior to construction of the wind farm, but 100% of respondents said that their fears had not been realised after construction, and that there were in fact no adverse effects. The potential for noise effects is considered in detail in chapter 10 (noise and vibration).

Property values

- 9.29 The IoWC confirmed in its scoping response (technical appendix C) that potential effects on property prices are not a material planning consideration and therefore have not been included in this assessment.

Health impacts

- 9.30 Concerns are often raised over the possible health impacts of living in the vicinity of a wind farm. Wind turbines produce very low levels of electromagnetic radiation, which presents no greater risk to human health than most domestic appliances (Companion Guide to PPS 22, 2004). The potential

for health effects resulting from low frequency noise associated with the wind turbines is assessed in chapter 10 (noise and vibration).

Lifespan and future implications

- 9.31 The operational design life is 25 years, after which the wind farm will either be decommissioned and the site reinstated accordingly, or a further planning application could be submitted to extend the life of the site by replacing the turbines.

Outside company profiting from the community and economic viability

- 9.32 These are not considered to be planning issues and are not covered in this environmental statement.

Intermittency

- 9.33 The perception that wind generated power is unreliable because it is unpredictable and uncontrollable has been addressed in a large number of research studies. The Carbon Trust and Department of Trade and Industry report *Renewables Network Impact Study* (2004) cites 74 references to such studies. The overwhelming consensus is that the variability of wind energy can be managed by the system operators, and that the associated operating costs are acceptable. Intermittency is further addressed in chapter 11.

Land use baseline

- 9.34 The West Wight site is greenfield and is predominantly used for arable farming. The agricultural land is of Grade 3 quality. Hummet Copse lies in the centre of the site, with three smaller copses in the south-east and one in the north-west corner. The farm has been farmed as a unit since 1952, and was entered into the Countryside Stewardship scheme in 2004 with a view to introducing more sustainable agricultural practices.

Land uses in the surrounding area

- 9.35 The main land use in the wider study area is arable farming (figure 9.7) on land of grades 3 and 4 quality. There are several farms in the vicinity of the site. The study area contains several small settlements, including Wellow and Thorley to the north of the site, Ningwood to the north-east, Newbridge to the east and Bouldnor on the coast to the north-west. There is a caravan park and camping site in Newbridge.
- 9.36 There are several areas of woodland in the study area, including Lee Copse and Bouldnor Copse to the north of the site, Chessell Copse and Stony Copse to the east, Brightstone Forest to the south and Lower Ham Copse, Upper Ham Copse, Wilmingham Plantation and Withybed Copse to the west.
- 9.37 There is a small active quarry to the south of the site (Stone Quarry). Other land uses in the study area include two places of worship in Thorley, a playing field in Bouldnor and a school in Ningwood.

Public rights of way

- 9.38 The site is crossed by several public rights of way (figure 9.8), including the following:
- footpath 18, running north-south through the west of the site
 - bridleway 19, running north-south through the centre of the site (the Hamstead Trail)
 - footpath 21a, running north-south through the east of the site and joining bridleway 21
 - bridleway 21, running north-south through the east of the site
 - footpath 34, running east-west through the south of the site.
- 9.39 The Hamstead Trail is a seven-mile long national trail that traverses the Island from north to south.
- 9.40 There are more than 10 additional public rights of way within the wider study area, including the Tennyson Trail. This is a 14-mile long national trail that links to the Hamstead Trail on Brook Down.
- 9.41 The B3325, which runs along the northern boundary of the site, forms part of the 62-mile long 'Round the Island Cycle Route'. There are no other cycle routes in the study area.

Assessment of sensitivity

- 9.42 As shown in figure 9.1, the assessment of a receptor's importance in land use terms is based primarily on whether it is a land use of local, county, regional or national significance.
- 9.43 The agricultural land on site is of moderate to good quality and low to medium land use importance. The copses are of low land use importance. The majority of public rights of way on site are considered of low to medium importance. The Hamstead Trail is of high importance because it is a national trail.
- 9.44 The majority of land uses in the wider study area (including the residential areas, farms, caravan park, woodlands and school) are of local significance, and considered to be of low sensitivity in land use terms. The agricultural land varies from poor to good quality and so is of low to medium importance. The public rights of way in the study area are of low importance, except for the national Tennyson Trail, which is of high importance.
- 9.45 The land use importance of the identified receptors is summarised in table 9.3.

Future baseline

- 9.46 The land is likely to remain predominantly in agricultural usage for the foreseeable future, with or without the wind farm development.

Receptor	Sensitivity/importance
Agricultural land	Low - medium
Copses	Low
Residential	Low
Caravan park	Low
School	Low
Playing field	Low
Place of worship	Low
Utilities	Low
Uncultivated grassland	Low
Public rights of way (various)	Low to high

Table 9.3: sensitivity of receptors

Community and social baseline

Population

9.47 The population of the Isle of Wight at the time of the 2001 census is shown in table 9.4.

	Brightstone & Calbourne	Freshwater Afton	Freshwater Norton	Shalfleet & Yarmouth	Totland	Isle of Wight	England and Wales
Total	2,494	2,817	2,543	2,325	2,984	132,730	-
Male	1,156	1,307	1,163	1,095	1,324	63,695	-
Female	1,313	1,472	1,290	1,218	1,448	69,035	-
<20 years old	18%	21%	18.5%	18.6%	20%	22.5%	25.1%
20-59 years old	45%	43%	37%	44%	43.7%	49%	54.1%
60+ years old	37%	36%	34%	30.7%	36%	29%	20.9%
Average age	-	-	-	-	-	43.2	38.6

Table 9.4: population statistics (2001 census)

9.48 In 2001 the population of the Island was 132,730, with the five wards in the vicinity of the proposed development accounting for almost 10% of the total population.

9.49 The percentage of the population who are over 60 on the Isle of Wight (29%) was considerably higher than in England and Wales (20.9%). In the ward of Brightstone and Calbourne, 37% of the population is over 60.

Tourism

Visitor numbers and origins

9.50 In recent years locations such as the Isle of Wight have encountered increasing competition as a holiday destination (especially with the growth of the budget

airline industry and cheap foreign package deals), although the Island remains popular with tourists. Tourism on the Island is seasonal and peaks in summer. Off-peak visitors are mainly lower-value coaching and group business. However, short breaks and special interest holidays are growing in importance.

- 9.51 2.64 million visitors arrived on the Isle of Wight by ferry between September 2004 and September 2005, from both domestic and overseas origins, a 2% increase over the previous year. The Isle of Wight is also a haven for yachts, and is a popular amongst day-sailors and cruisers. The Southern Tourist Board estimated that over 197,000 yachtsmen visited the Island in 2000.
- 9.52 Journeys from within the UK account for 94% of visits to the Isle of Wight and 41% of the Island's visitors are on day trips. 52% of day-trippers live in Hampshire, and the majority of the remainder come from the southern counties. 49% of the UK-based day-trippers give leisure as their primary motivation, with business trips generating 28% of day visits.
- 9.53 Over one million visitors stayed overnight on the Isle of Wight in 2004. Table 9.5 shows that the preferred accommodation is in hotels (43%), with static caravan/chalet housing (24%) being the second most popular. 'Staying' visitors spend an average of 4.2 nights on the Isle of Wight, with stays of four or more nights accounting for 60% of staying visitors.

Accommodation type	Preferred accommodation type (%) 2004/5
Hotel	43
Static caravan or chalet	24
Second home / static caravan	9
Self-catering house / cottage / flat	7
Touring caravan / motor home / tent	6
Guest house / B&B / pub	5
With friends / relatives	3
Yacht	1
Other	2

Table 9.5: accommodation used by visitors to the Isle of Wight 2004/05 (Isle of Wight Tourist Monitor)

- 9.54 The Tourism Development Plan (2005) identifies 43,829 tourist bed spaces in the Isle of Wight, with peak season occupancy rates of between 71 and 94%, depending on the accommodation type. The average annual occupancy rate is significantly lower at 40 to 54%.
- 9.55 National average occupancy rates for seaside locations are only available for the serviced accommodation sector and, at 42%, are slightly higher than the comparable occupancy rates on the Island of 40%.
- 9.56 No definitive information is available on the reasons tourists choose to visit the Isle of Wight, although it is likely to be a combination of a number of

factors. The IoWC's Island Plan (2006) describes the tourism strengths of the Island, including the following:

- the 'Island' factor creates a perception of a unique, distinct, but still British environment
- the natural and built environment, including the AONB, Heritage Coast, 13 award-winning beaches and iconic landmarks, such as the Needles
- the geological importance of the Island, particularly with regard to fossils and dinosaur finds
- the wealth of visitor attractions and strong heritage sector
- the variety of events on the Island, including Cowes Week, the Nokia Music Festival and the Cycling Festival
- the wide variety of accommodation
- the comprehensive network of footpaths, bridleways and cycle routes
- the opportunity for a wide range of outdoor activities, including walking, cycling, sailing, water sports, horse riding and golf.

Tourist revenue

- 9.57 In a study into the sectors of employment in Hampshire and the Isle of Wight, carried out by the Learning and Skills Council (2005), tourist generated revenue was estimated to account for 30% of the Isle of Wight's gross domestic product (GDP).
- 9.58 In 2004/05 the Isle of Wight Tourist Board estimated tourist related revenue as £352 million. Visitors staying on the Island generated £315 million (90%), with day trips bringing in an additional £37 million annually. The multiplier effects of tourism revenue are estimated to generate a further £100 million annually (IoWC, 2006).
- 9.59 Visiting yachts have been estimated to bring £19 million to Cowes, and £5.5 million to the rest of the Island.
- 9.60 The Isle of Wight has over 300 tourist attractions and leisure enterprises. Attractions in West Wight include both free and paid attractions, including the Needles, Alum Bay and Tennyson Down.
- 9.61 Tourist Board studies of visitors on their homeward journey have shown that 45% visited an Island attraction. A third of day trippers and 40% of visitors staying on the Island paid to visit an attraction, with less than a third of visitors going to a free attraction.

Employment

- 9.62 Between April 2004 and March 2005 the rate of unemployment on the Isle of Wight was 3%, lower than the average unemployment in the South East (3.7%) and in the rest of the UK, where levels were 4.8%.
- 9.63 The largest industry in terms of employment on the Isle of Wight is the service sector, which accounts for 84.1% of the Island's jobs (table 9.6), and is comparable with the South East of England and the rest of the UK. Within the

service sector, the Isle of Wight has 34.4% working in distribution, hotels and restaurants, and 32.9% in public administration, teaching and health, almost 10% more than in the South East and the UK.

Sector	Isle of Wight (employee numbers)	Isle of Wight (%)	South East England (%)	UK (%)
Total employees	47,160	-	-	-
Manufacturing	4,854	10.3	9.4	11.9
Construction	1,206	2.6	4.1	4.5
Services (total)	39,649	84.1	84.8	82.1
Distribution/hotels/ restaurant	16,206	34.4	26.3	24.7
Transport/ communications	1,604	3.4	5.8	5.9
Finance/IT/business	3,794	8	23.2	20
Public administration/ teaching/health	15,505	32.9	24.5	26.4
Other	2,537	5.4	5	5.1
Tourism	8,183	17.4	8.3	8.2

Table 9.6: Employment by sectors (Nomis 2006: Annual business inquiry employee analysis 2004)

- 9.64 The tourist industry employs 17.4% of the working population on the Isle of Wight, over double the percentage of the tourism-based employment in the South East, and England and Wales. Table 9.7 shows that restaurants and bars account for over half of the tourism employment on the Isle of Wight. Employment within the hotel and catering sector is predicted to rise by 10% between 2001 and 2011.

Source of employment	Percentage of workers in the tourism sector
Hotels	15%
Camping sites	3%
Restaurants	23%
Bars	29%
Activities of travel agencies	5%
Library, archives, museums	4%
Sporting activities	15%
Other recreational activities	6%

Table 9.7: Employment in the hospitality and tourism sectors on the Isle of Wight (Learning and Skills Council 2000)

- 9.65 There are a number of major employers on the Isle of Wight, including public sector organisations (local government, NHS, prison service) and private companies (such as GKN Aerospace, SP Systems and Vestas Blades).
- 9.66 Vestas Blades UK is located in Newport. The company, which is the largest manufacturer of wind turbine blades in the UK, employs over 400 people, including 50 specialist engineers.

Future baseline

9.67 In the absence of the proposed development, there will still be changes to the future baseline environment. A study carried out by the Hampshire Economic Partnership in 2004 predicted that employment in Hampshire and the Isle of Wight will increase by 0.8% per year to 2011. Studies for the Hampshire and Isle of Wight Learning Skills Council have forecast the following employment trends:

- employment in the construction sector in Hampshire and the Isle of Wight is predicted to increase by 19.2% between 2001 and 2011: within this sector, large increases in demand are forecast for the electrical and construction trades, while demand for crafts will decrease
- employment is predicted to increase in the retail sector
- employment in the marine and engineering sectors is forecast to increase by between 5% and 20%, with particular demand for professionals and skilled trades
- hotel and catering employment is predicted to increase by 10% between 2001 and 2011.

Effects during construction

Land use

The West Wight site

9.68 During site preparation and construction activities, a small area (less than 5 ha) of land used for arable cropping will be removed to allow ground preparation for the access tracks and turbine tower footprints and trench digging and connection of underground electricity cables. This is a change of small magnitude and, given the low sensitivity of the agricultural land on site, an effect of slight significance. There will be no significant effect on the copses on site.

9.69 There is the potential for the excavation of soils during construction to lead to damage to soil structure and a loss of the soil resource. Given the small area of soils involved, without mitigation this is predicted to be an effect of small magnitude and slight significance.

Land uses in the surrounding area

9.70 During construction, there is the potential for sensitive land uses surrounding the site, such as the nearby residential properties, to be adversely affected by increased noise, traffic and dust. This could affect amenity at these receptors, and so affect land use in these areas. However, no significant increases in noise, traffic levels and dust emissions are predicted during construction (see air quality, noise and traffic chapters), and no significant effects are envisaged on surrounding land uses during construction.

Public rights of way

- 9.71 Three of the public rights of way on site, including the Hamstead Trail, cross access tracks that will be used during the construction phase. Temporary closures or very minor diversions may be necessary during construction for safety reasons and will be signed accordingly. Given the short duration of the construction period (six to nine months) and that not all public rights of way will be affected throughout the process, this change is considered to be of negligible magnitude and not significant.
- 9.72 None of the public rights of way off-site will be affected during construction.

Community and social

- 9.73 The construction phase will generate approximately 100 temporary employment opportunities, with recruitment primarily from the local area. Unemployment is relatively low on the Isle of Wight and is of low sensitivity. Just over 1000 people are employed in the construction industry on the Island, and this development will provide short term work for approximately 10% of the work force, if all are recruited locally. Some new jobs might be created, though the change in employment is predicted to be of negligible magnitude and no significant effects are predicted.
- 9.74 Most if not all workers are predicted to be recruited locally, and there will not be a significant change in the Island's population as a result.
- 9.75 Tourism is unlikely to be affected during the construction phase as no significant increases in dust emissions or traffic and noise levels are predicted in the assessment. Construction activities will be localised. The visitor experience to the Island generally will therefore not be degraded by construction activities and no significant impact on visitor numbers or tourist revenue is predicted.

Effects during operational phase**Land use*****The West Wight site***

- 9.76 Following the completion of construction and restoration work at the site, agricultural use will resume around the turbines and ancillary equipment. There will be a permanent loss of agricultural land at the site as a result of the construction of these elements and the permanent access tracks, but this will not include any areas of best and most versatile land and is considered to be a change of negligible magnitude and an effect of no significance. Less than 1% of the holding is affected. Severance has been avoided through careful track routing.
- 9.77 The turbines and ancillary equipment will create obstacles to agricultural machinery, which may reduce yields from the site. However, this reduction is considered to be of negligible magnitude and is not significant.

9.78 During operation the site will be used for the generation of energy, which is a land use of regional importance and medium sensitivity. The introduction of this land use is a beneficial change of large magnitude and substantial significance.

9.79 There will be no significant effects on soil resources at the site during the operational phase.

Land uses in the surrounding area

9.80 No changes are proposed to land uses outside the application site, so land uses in the wider study area will not be directly affected by the proposed development. No significant changes in traffic or noise levels are predicted as a result of the proposals and there will be no significant indirect effects on land uses outside the site.

Public rights of way

9.81 The Companion Guide to PPS22 states that:

‘There is no statutory separation between a wind turbine and a Public Right of Way. Often, fall over distance is considered an acceptable separation, and the minimum distance is often taken to be that the turbine blades should not be permitted to oversail a Public Right of Way.’

9.82 While turbines 3, 4 and 6 are within fall over distance (height to blade tip) of the closest public rights of way, none of the six turbines will oversail a public right of way, so the minimum separation distance is achieved. No data are available on the effect of wind turbines on the use of public rights of way, and this effect is likely to vary between individuals. There are several examples of existing wind farms with public rights of way that run close to the turbines or public access to the site, including Delabole in Cornwall and Carno and Cemmaes II in Wales (Dti, 2001).

9.83 The proposals will lead to a large change in the experience of users of the sections of the public rights of way that run through the site, which will be of moderate to substantial significance. However, this will not necessarily result in a decrease in use of the footpaths as the nature of this change is subjective. Given that there are no safety implications of continued use of the footpaths, no significant reduction in use is predicted.

9.84 Additional specific guidance for bridleways is provided by the Companion Guide to PPS 22:

‘The British Horse Society, following internal consultations, has suggested a 200 m exclusion zone around bridle paths to avoid wind turbines frightening horses. Whilst this could be deemed desirable, it is not a statutory requirement, and some negotiation should be undertaken if it is difficult to achieve this.’

- 9.85 Turbines 4 and 6 are within 55 metres of the two bridleways on site. The nature of the network of public rights of way on and around the site and other environmental considerations has meant that it has not been possible to achieve a greater separation. This is considerably less than the distance recommended by the British Horse Society. However, the British Wind Energy Association (BWEA) quotes examples of existing wind farms where turbines are located within 100 metres of bridleways, with mitigation measures of warning signs for riders and the turbines in view for 2 km beforehand. This reduces the issue of turbines unexpectedly appearing in view. The BWEA also cites examples of wind farms adjacent to stables, one of which has fields within 50 metres of the turbines, and riding events in close proximity to wind farms. No significant problems have been encountered at these sites. However, the magnitude of any reduction in use is uncertain.
- 9.86 The public rights of way off-site will not be directly affected by the proposed development. Potential effects on users of off-site public rights of way from changed views are considered in the landscape and visual chapter.

Community and social

Direct employment effects

- 9.87 The wind turbine supplier will need to decide the details of the maintenance strategy for the operational wind farm. Given the island setting and the time to travel to the island from the mainland, it is considered likely that there will be some employment opportunities for local personnel and for supply of services by local companies to the windfarm. Changes to employment as a direct result of the wind farm will be of negligible magnitude and have no significant effects. There will also be no significant impact on local demography.

Indirect employment effects

- 9.88 Tourism-related employment may be affected by the proposals. There have been no rigorous independent surveys of Isle of Wight visitor attitudes towards the proposed wind farm, so the potential effect on tourism is uncertain. The survey commissioned by ThWART in 2005 cannot be analysed to provide a detailed prediction of potential effects. The unique situation of the Isle of Wight, in terms of location and its independence of economy, means that the results of surveys carried out in other locations (Wales, Scotland, Cumbria, Cornwall and Devon) will not be directly relevant in this context, although the results of these surveys consistently suggest that any impact on tourism is likely to be limited.
- 9.89 No definitive information is available on the reasons why people choose to visit the Isle of Wight, although it is likely to be combination of several factors. These include the award-winning beaches, landscape, visitor attractions and provision for outdoor activities. The proposals will not affect all of these attractions, although there will be a change to the landscape of West Wight and to public rights of way in the area. This is analysed in the landscape and visual chapter of this environmental statement. The nature and significance of this change will be subjective and will vary between individuals.

- 9.90 Given the variety of attractions and environments that draw visitors to the Island, it is not considered that the proposals will lead to a significant reduction in tourism visits to the Island. The wind farm itself could be regarded as a feature of interest by some visitors.

Tourist revenue

- 9.91 Tourism income is considered to be of medium sensitivity due to its contribution to the Island's overall revenue. Most of the tourist-related revenue is generated through staying visitors. There is no conclusive information on how the wind turbines may impact on tourist numbers and thus tourist revenue on the Isle of Wight. However, reference to surveys of changes in tourist revenue in the vicinity of wind farms in other UK locations can be made, and these show negligible impacts.

- 9.92 The wind farm will not directly impact on any major tourist accommodation, facility or attraction. Tourism could potentially be affected indirectly by views of the wind farm deterring visitors, though research elsewhere suggests that this will not be the case. Visual effects are considered in the landscape and visual chapter, but it can be concluded from the ZVI map (figure 8.4a) that tourists in the main tourist hotel accommodation towns along the southern coast (such as Ventnor, Shanklin, Sandown and Bembridge) will not see the wind farm. Water-borne visitors in craft sailing or moored along the Medina at Cowes (another important source of visitor income) will be similarly unaffected. The responses of tourists who do see the development will vary from individual to individual, but it is considered extremely unlikely that a significant decline in visitor numbers will be experienced. Therefore, changes in the tourist-generated revenue are predicted to be of negligible magnitude and no significance.

Renewable energy business relationships

- 9.93 If the turbine components used are manufactured at the local Vestas Blades facility in Newport, the wind farm will provide an opportunity for the company to demonstrate its products to potential clients as well as providing opportunities for staff training and familiarisation with the product. In addition, the wind farm could provide Vestas with a local facility to undertake research into the performance of wind turbine blades. All of these aspects will assist and support the continued future success and stability of wind turbine blade production on the Island. Through this relationship there would be the potential for increased future investment in the Island's private sector and related businesses associated with Vestas Blades. This is predicted to be a beneficial impact of medium magnitude and moderate to substantial significance.

Educational resource

- 9.94 Renewable energy is increasing in prominence in the UK. The proposed development will be an operational example of renewable energy technology and will provide an educational resource for the Island's community and visitors. Subject to local approvals, a number of interpretation boards could be provided at selected locations at the site and in areas where views of the wind

turbines are available, giving information on subjects such as the purpose, functioning and carbon savings of the wind farm. The function of the proposals as an educational resource is predicted to be a beneficial impact of small magnitude and slight significance.

Mitigation

Land use

9.95 In order to minimise the potential for damage to soil structure and the loss of soil resources during construction, soils will be excavated in line with Defra soil handling guidelines (MAFF, 2000). These include the following recommendations:

- use of backacters and dump trucks for soil excavation and movement
- soil excavation to be carried out during dry weather where possible
- re-use of soil around turbine footings where possible
- topsoil and subsoil to be excavated and stored separately
- minimal (if any) soil resources to be transport off-site.

9.96 In addition to these measures, the access track layout has been designed to minimise the area of land take and reduce the amount of soil that needs to be stripped and stockpiled. These measures will reduce the magnitude of change to soil structure and resources to negligible and no significant effects are predicted.

9.97 Warning signs will be provided along the two bridleways that run through the site, both at the site entrance and before the site is reached, to advise riders of the need for extra caution.

Community and social

9.98 No mitigation is proposed for community and social effects.

Residual effects

9.99 The residual effects are shown in table 9.8.

	Significant residual effect	Importance of receptor	Magnitude of change	Nature	Duration	Significance	Level of certainty
Land use	Loss of agricultural land	Low	Small	Adverse	Long-term	Slight	Absolute
	Use of site for the generation of energy	Medium	Large	Beneficial	Long-term	Substantial	Absolute
	Change in walking experience on public rights of way	Low to high	Large	Subjective	Long-term	Moderate to substantial	Absolute
	Reduction in use of bridleways	Low to high	Uncertain	Adverse	Long-term	Uncertain	Uncertain
Community and social	Improved renewable energy business relationships on the Island	Low to medium	Medium	Beneficial	Long-term	Moderate to substantial	Reasonable
	Proposed development will provide an educational resource	Low	Small	Beneficial	Long-term	Slight	Reasonable

Table 9.8: residual effects